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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,973	01/25/2002	Tominari Araki	020611	3883

38834 7590 02/22/2008

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ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
02/22/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/056,973
Filing Date: January 25, 2002
Appellant(s): ARAKI ET AL.

Nicolas E. Seckel
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 24, 2006 appealing from the Office action mailed September 21, 2005 and the Remand from the Board mailed November 30, 2007.

Comment [THM1]: Need to be complete and accurate when you are preparing an action.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are the following new grounds of rejection have been added.

- Claims 10-21, 25-40, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6654085 to Koike et al. in view of JP 09176586 to Miura (English Translation).
- Claims 22-24, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over. USPN 6654085 to Koike et al. in view of JP 09176586 to Miura (English Translation) and further in view of USPN 4,812,034 to Mochizuki et al.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

JP 09176586 to Miura, 07-1999

USPN 6,654,085 to Koike et al., 11-2003

USPN 3,763,356 to Berler, 10-1973

USPN 4,812,034 to Mochizuki et al., 03-1989

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

A. Claims 10-21, 25-40, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6654085 to Koike et al. in view of USPN 3,763,356 to Berler.

Koike teaches a front scattering film with peelable substrate and peelable protective films (34) and (54) from optical retardation film (31) or optical polarizer film (51). See Figures 6-7 and Example 2. The substrates are of transparent films such as triacetyl cellulose (col. 6, lines 10-15). Because the peelable film is removed, it is considered easy-releasing. Koike teaches

multilayer optical films described above are removable to laminate to liquid crystals to obtain a liquid crystal display.

Koike teaches an optical member comprising a polarizing plate or retardation plate, (instant claims 13, 20-21, and 39-40) and separator adhered to an optical member via an adhesive layer (instant claims 14-15 and 33-34). Koike teaches peelable protective films (34) and (54) adjacent optical retardation film (31) or optical polarizer film (51). Underlying polarizer (51) and retardation (31) is separators (33) and (53) with adhesives (32) and (52) lying therebetween. See Figures 6-7, Example 2, and col. 2, lines 15-35 of Koike.

Koike teaches the adhesive and easy-releasing member thicknesses as per instant claims 16 and 35. Koike teaches the adhesive thickness is 10 microns in Example 2, falling within Applicants range of between 1 and 500 microns of instant claims 16 and 35.

Koike does not state the thickness of easy-releasing member (claims 17-19 and 36-38). However, it would have been obvious to one of ordinary skill in the art to produce a thickness as claimed, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness effects the strength.

Koike does not teach the easy-releasing protective member comprises ink where ink emits fluorescence (claims 12 and 31), specifically having a transmittance of 95% or optical transmittance of a portion without ink in the protective member is no less than 80% (instant claims 11, 30) or no less than 90% and up to 100% and not less than 92%, 94% and 96% of transmittance without ink (claims 25-27 and 44-46). Koike does not teach the optical member is

different with or without portions (instant claims 28 and 47). Koike does not teach an arbitrarily formed component such as a character, figure, sign, or color (instant claims 48-51).

Berler teaches an optical readable member (Berler, col. 1, line 5) containing printed fluorescent ink imprinted on transparent substrates such as cellulose acetate (Berler, col. 3, lines 15-31) for identifying purposes (Berler, Abstract, col. 2, lines 20-35, col. 4, lines 1-27, lines 54-55). The fluorescent ink is irradiated by UV light (Berler, col. 2, lines 30-35 and col. 5, lines 20-30). Berler teaches fluorescent ink provides color and information and is equivalent to an arbitrarily formed component such as a character, figure, sign, or color (instant claims 48-51) for projecting a fluorescent color dependent upon the light spectrum (Berler, col. 3, lines 29-68).

To instant claims 28 and 47, that an optical member is different with or without ink on it is provided for by Berler because Berler has ink on portions and non-ink portions via printing, which is a difference.

It would have been obvious to one of ordinary skill in the art to have modified the optical member of Koike to include ink as recited in instant claims 10-11, 25-28, 30, 44-51 because Berler teaches printed fluorescent ink imprinted on transparent substrates such as cellulose acetate (col. 3, lines 15-31 of Berler) for identifying purposes, fluorescent ink also provides color and information and is equivalent to an arbitrarily formed component such as a character, figure, sign, or color for projecting a fluorescent color dependent upon the light spectrum (col. 3, lines 29-68 of Berler), and because the ink is printed, a difference is achieved as cited above. The same transparent material and same fluorescent ink are used and thus would inherently have the transmittance with and without ink as recited in instant claims 10-11, 25-27, 30, and 44-46.

B. Claims 22-24, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over. USPN 6654085 to Koike et al. in view of USPN 3,763,356 to Berler and further in view of USPN 4,812,034 to Mochizuki et al.

Koike and Berler are relied upon above.

Koike does not teach a brightness-enhanced, linearly reflective polarizer, or cholesteric liquid crystal layer or plates of instant claims 22-24 and 41-43.

Mochizuki teaches a projection type liquid crystal display device. Mochizuki uses a cholesteric-nematic phase transition type liquid crystal (equivalent to linearly reflective polarizer/cholesteric liquid crystal layer of instant claims 23-24 and 42-43) with positive dielectric anisotropy used in a projection type liquid crystal display device sealed between transparent substrates 13 and 14 and transparent electrodes 15 and 16 (col. 4, lines 9-20). See Figures 2a and 2b. Mochizuki provides the advantage of using this type of liquid crystal allows for a bright and high information contents display with a compact (equivalent to brightness-enhanced plate of instant claims 22 and 41), light, and low cost device and allows machinery input and thus simultaneous display at remote places, such as remote conference rooms or remote notice boards, in bright locations. The liquid crystal panel contains substrates. See Abstract, col. 2, lines 1-35, and col. 4, lines 37-40.

It would have been obvious to one of ordinary skill in the art to modify the combination of Koike and Berler to include a linearly reflective polarizer and/or chlosteric liquid crystal layer because Mochizuki teaches including such material allows a bright and high information contents display with a compact, light, and low cost device and allows machinery input and thus

simultaneous display at remote places, such as remote conference rooms or remote notice boards, in bright locations as cited above.

NEW GROUND(S) OF REJECTION

C. Claims 10-21, 25-40, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6654085 to Koike et al. in view of JP 09176586 to Miura (English Translation).

Koike teaches a front scattering film with peelable substrate and peelable protective films (34) and (54) from optical retardation film (31) or optical polarizer film (51). See Figures 6-7 and Example 2. The substrates are of transparent films such as triacetyl cellulose (col. 6, lines 10-15). Because the peelable film is removed, it is considered easy-releasing. Koike teaches multilayer optical films described above are removable to laminate to liquid crystals to obtain a liquid crystal display.

Koike teaches an optical member comprising a polarizing plate or retardation plate, (instant claims 13, 20-21, and 39-40) and separator adhered to an optical member via an adhesive layer (instant claims 14-15 and 33-34). Koike teaches peelable protective films (34) and (54) adjacent optical retardation film (31) or optical polarizer film (51). Underlying polarizer (51) and retardation (31) is separators (33) and (53) with adhesives (32) and (52) lying therebetween. See Figures 6-7, Example 2, and col. 2, lines 15-35 of Koike.

Koike teaches the adhesive and easy-releasing member thicknesses as per instant claims 16 and 35. Koike teaches the adhesive thickness is 10 microns in Example 2, falling within Applicants range of between 1 and 500 microns of instant claims 16 and 35.

Koike does not state the thickness of easy-releasing member (claims 17-19 and 36-38). However, it would have been obvious to one of ordinary skill in the art to produce a thickness as claimed, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness effects the strength.

Koike does not teach the easy-releasing protective member comprises ink where ink emits fluorescence (claims 12 and 31), specifically having a transmittance of 95% or optical transmittance of a portion without ink in the protective member is no less than 80% (instant claims 11, 30) or no less than 90% and up to 100% and not less than 92%, 94% and 96% of transmittance without ink (claims 25-27 and 44-46). Koike does not teach the optical member is different with or without portions (instant claims 28 and 47). Koike does not teach an arbitrarily formed component such as a character, figure, sign, or color (instant claims 48-51).

Miura teaches an optical protecting tape (Miura , pg.2, claims 1-2) for protecting optical polarizing plates (see [0001, 0010, 0017]) containing printed fluorescent ink imprinted in patterns on transparent substrates such as thermoplastic films such as polyethylene or PET (Miura , [0011, 0014, 0020, 0026]) so that the optical tape may enable the detection during an automated inspection which print shows during exposure to UV light (Miura , Abstract, embraces print ink for identification). Miura teaches fluorescent ink provides color and in patterns including characters and is equivalent to an arbitrarily formed component such as a

character, figure, sign, or color (instant claims 48-51, see [0014]) for projecting a fluorescent color dependent upon the light spectrum (Miura, [0020]).

To instant claims 28 and 47, that an optical member is different with or without ink on it is provided for by Miura because Miura has ink on portions and non-ink portions via printing, which is a difference.

It would have been obvious to one of ordinary skill in the art to have modified the optical member of Koike to include ink as recited in instant claims 10-11, 25-28, 30, 44-51 because Miura teaches printed fluorescent ink imprinted on transparent substrates such as thermoplastic films as polyethylene for automated inspection purposes, fluorescent ink also provides color and is equivalent to an arbitrarily formed component such as a character, figure, sign, or color for projecting a fluorescent color dependent upon the light spectrum, and because the ink is printed, a difference is achieved as cited above. The same transparent material and same fluorescent ink are used and thus would inherently have the transmittance with and without ink as recited in instant claims 10-11, 25-27, 30, and 44-46.

D. Claims 22-24, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over. USPN 6654085 to Koike et al. in view of JP 09176586 to Miura (English Translation) and further in view of USPN 4,812,034 to Mochizuki et al.

Koike and Miura are relied upon above.

Koike does not teach a brightness-enhanced, linearly reflective polarizer, or cholesteric liquid crystal layer or plates of instant claims 22-24 and 41-43.

Mochizuki teaches a projection type liquid crystal display device. Mochizuki uses a cholesteric-nematic phase transition type liquid crystal (equivalent to linearly reflective

polarizer/cholesteric liquid crystal layer of instant claims 23-24 and 42-43) with positive dielectric anisotropy used in a projection type liquid crystal display device sealed between transparent substrates 13 and 14 and transparent electrodes 15 and 16 (col. 4, lines 9-20). See Figures 2a and 2b. Mochizuki provides the advantage of using this type of liquid crystal allows for a bright and high information contents display with a compact (equivalent to brightness-enhanced plate of instant claims 22 and 41), light, and low cost device and allows machinery input and thus simultaneous display at remote places, such as remote conference rooms or remote notice boards, in bright locations. The liquid crystal panel contains substrates. See Abstract, col. 2, lines 1-35, and col. 4, lines 37-40.

It would have been obvious to one of ordinary skill in the art to modify the combination of Koike and Miura to include a linearly reflective polarizer and/or chlosteric liquid crystal layer because Mochizuki teaches including such material allows a bright and high information contents display with a compact, light, and low cost device and allows machinery input and thus simultaneous display at remote places, such as remote conference rooms or remote notice boards, in bright locations as cited above.

(10) Response to Argument

Appellant alleges the Examiner has failed to establish a prima facie case of obviousness based on the contention that Koike is silent to identifying its optical element. Appellant's allegations are not persuasive because Koike essentially teaches the claimed invention; all of the required elements are present minus the ink information, ink material, and inherent characteristics therefrom. Berler uses ink on the same material (cellulose acetate) and adding ink on Koike's cellulose acetate layer would be expected to work by one of ordinary skill in the art,

and would not be destroy Koike's device as Appellant contests. As Berler shows, it's especially suited for identification purposes such as coded information on optical elements as set forth in the Abstract of Berler, col. 2, lines 20-29, 4, lines 40-68, and col. 5, lines 14-25. Appellants argue that Berler discloses machine readable tape, card, and ticket documents with ink for UV and translucence filtering capacity, but Berler does not suggest applying the ink information to an optical member such as a polarizer, retardation or brightness enhanced film. IT is not clear to the examiner why the intended function of a material can limit it's inherent characteristics. Berler, the secondary reference, shows fluorescent ink on cellulose acetate, equivalent to the cellulose acetate easy-releasing protective member of Koike, is known and functional, having no detrimental effect on the inherent chrematistics of the substrate to which the ink is applied. Given this and the lack of evidence in the record indicating an expectation of detrimental effects, the rejection is maintained.

Appellants argue that Koike does not show an easy-releasing film. However, because the peelable film of Koike is removed, it is considered easy-releasing. "Easy-releasing" is not quantified in the claim and there is no evidence that "peelable" of Koike is not within the scope of Appellants' "easy-releasing". Koike teaches that multilayer optical films described above are removable to laminate to liquid crystals to obtain a liquid crystal display. Thus, in combination, one would desire to either identify the optical member of Koike at some point, prior to or after removal, using the ink of Berler for identification purposes. Berler explicitly teaches the ink is printed for encoding. Encoding is indeed identification. Koike need not mention the identification of its invention because the need for applying ink is apparent, despite Appellant's allegations, because there is a general desire in industry for part labeling and the same cellulose

acetate material is shown by Berler to be suitable for ink application and identification.

Appellant argues that Berler discloses machine readable documents such as punch cards having fluorescent ink imprint and address different problems. However, the Appellants have not limited the claims to a type of identification, nor optical member, which are broad terms and encompassed by the prior art teachings set forth above.

Further, Appellant argues Berler attempts to improve readability of coded information in the form of fluorescent ink so the document is readable unidirectionally only. However, Appellant has not presented any claims that exclude this embodiment.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tamra L. Dicus/
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/Terrel Morris/
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Conferees:

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